

Summary of Key Briefing Points:1030-1130am MST January 26, 2016

Current Conditions as of Tuesday 12Z 26 January

Tropics and Midlatitudes

Over the Tropical Pacific:

- Convection: Strong, organized convective region from Eq 160W-150W, to centered near 5S, 0-10S
 - Cirrus Shield radiates from this near circular domain
 - More narrow banded convection 6N-10N 167W-140W

Tropical Outlook

- By 00Z Wed 26 Jan, principal divergent outflow in the 0-10N band expected within mission domain
 - Confidence for large scale poleward outflow in mission region is high based on GFS/EC/FIM/CMC model agreement....
- By 00Z Thu 25 Jan, convection and upper level outflow in mission region reduced
 - Confidence for large scale features is moderate to low, given that there is no indication of wave-related dynamical organization of the current convective regime
- Recover in convection, especially by Fri in region 0-5N, 170W-120W in model fcst models.

--- in summary, the preliminary indication from Tue forecasts Tuesday would be favorable convective regime for flight mission #3, Wednesday less so, and then prospects improve by end of week.

Midlatitude Outlook

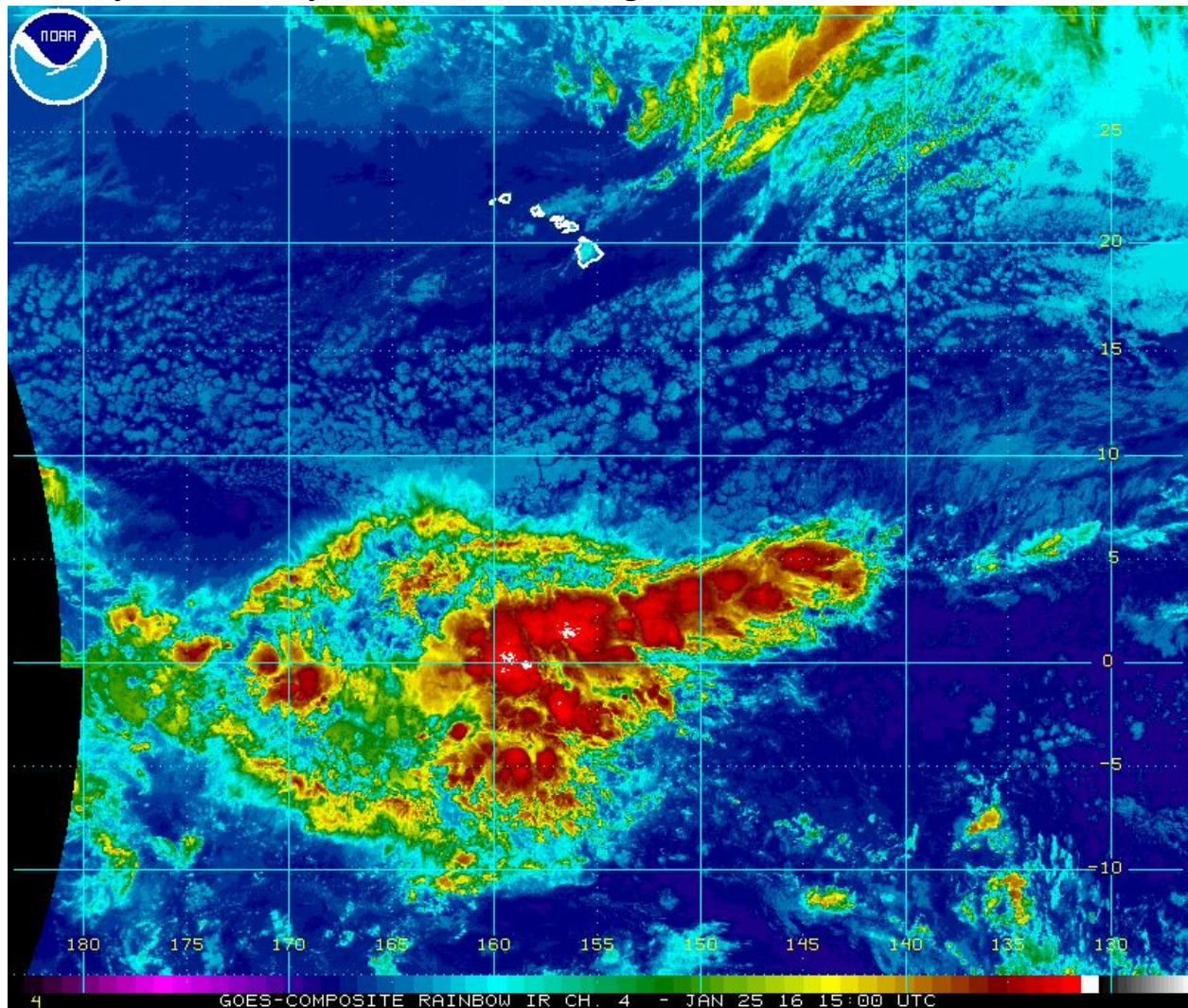
Short Term:

- Quiet CA next thru next 48 hrs- thru Wed night.

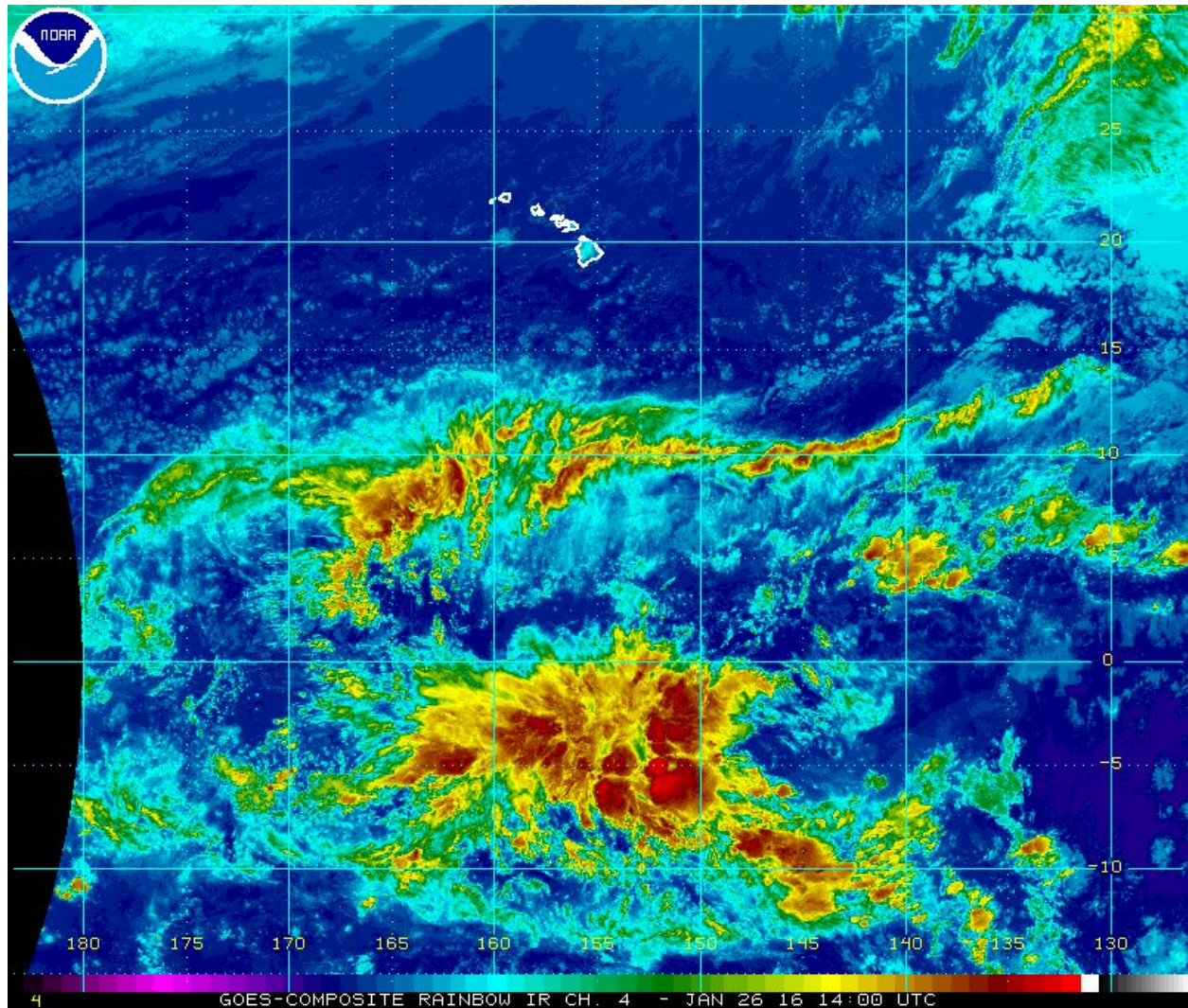
Medium - Long Term:

- High confidence that CA will be mostly dry in the period 25 Jan thru Thu 28 Jan.
---- GEFS ensemble in strong agreement to 168 hr lead (Thur 28 Jan) for a transient Ridge on the Pacific coast.
- Rains return to far coastal NCAL Thurs, spreading into NSierra Fri, associated with slowing sagging cold frontal boundary.
- GFS 12Z Tues run indicates cyclogenesis on this frontal boundary to occur near 140W on Sat.
- GFS 12z Tues run indicates Strong frontal cyclone to hit central CA on Sunday (120-132 hr lead). Confidence low...12Z ECMWF does not generate this frontal cyclone
- Days 7-10 indicates has low confidence, with considerable model disagreement.
--- the wx pattern will be dynamic and progressive, hence the lower confidence.

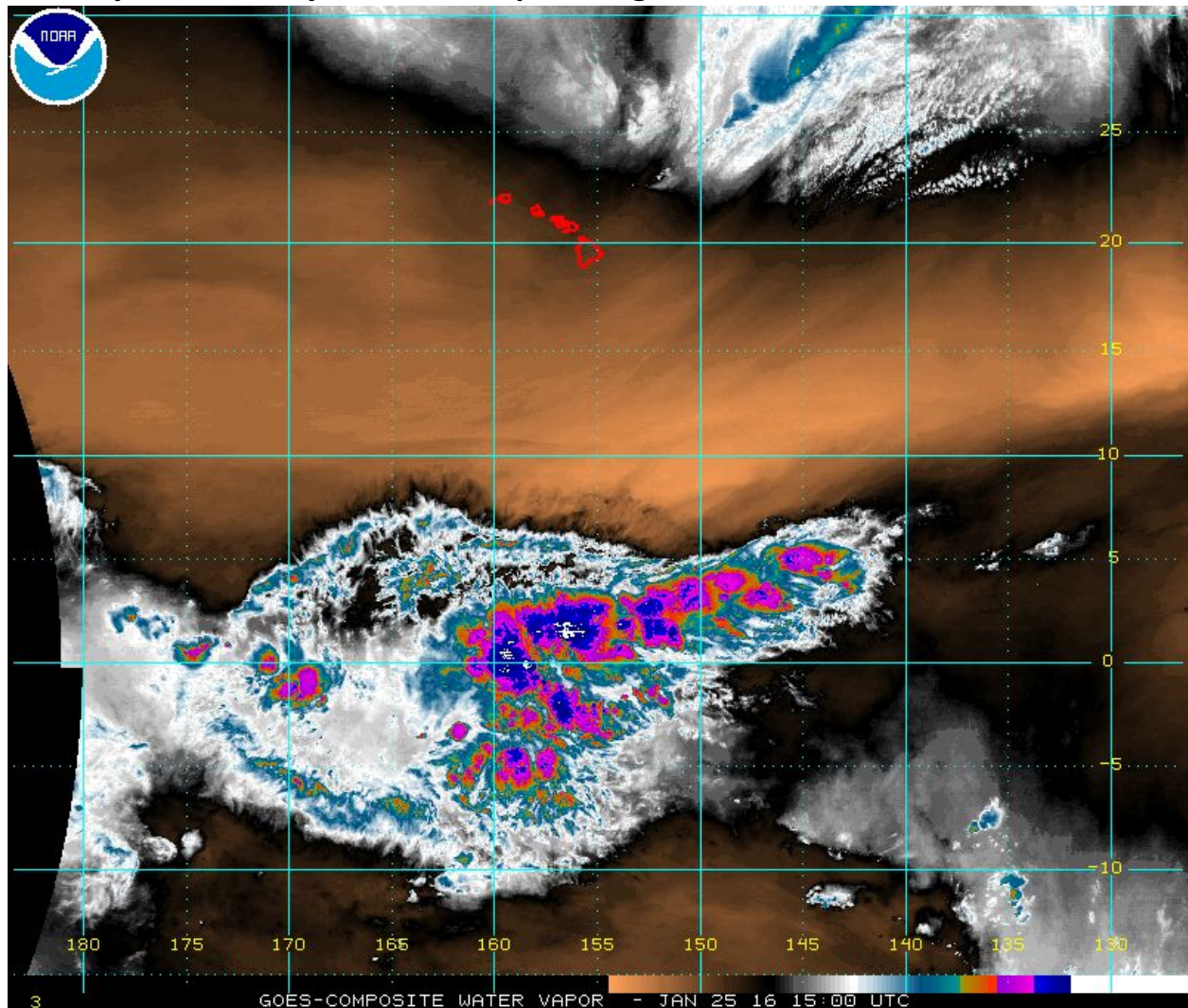
Monday 15Z January 25 Enhanced IR Image



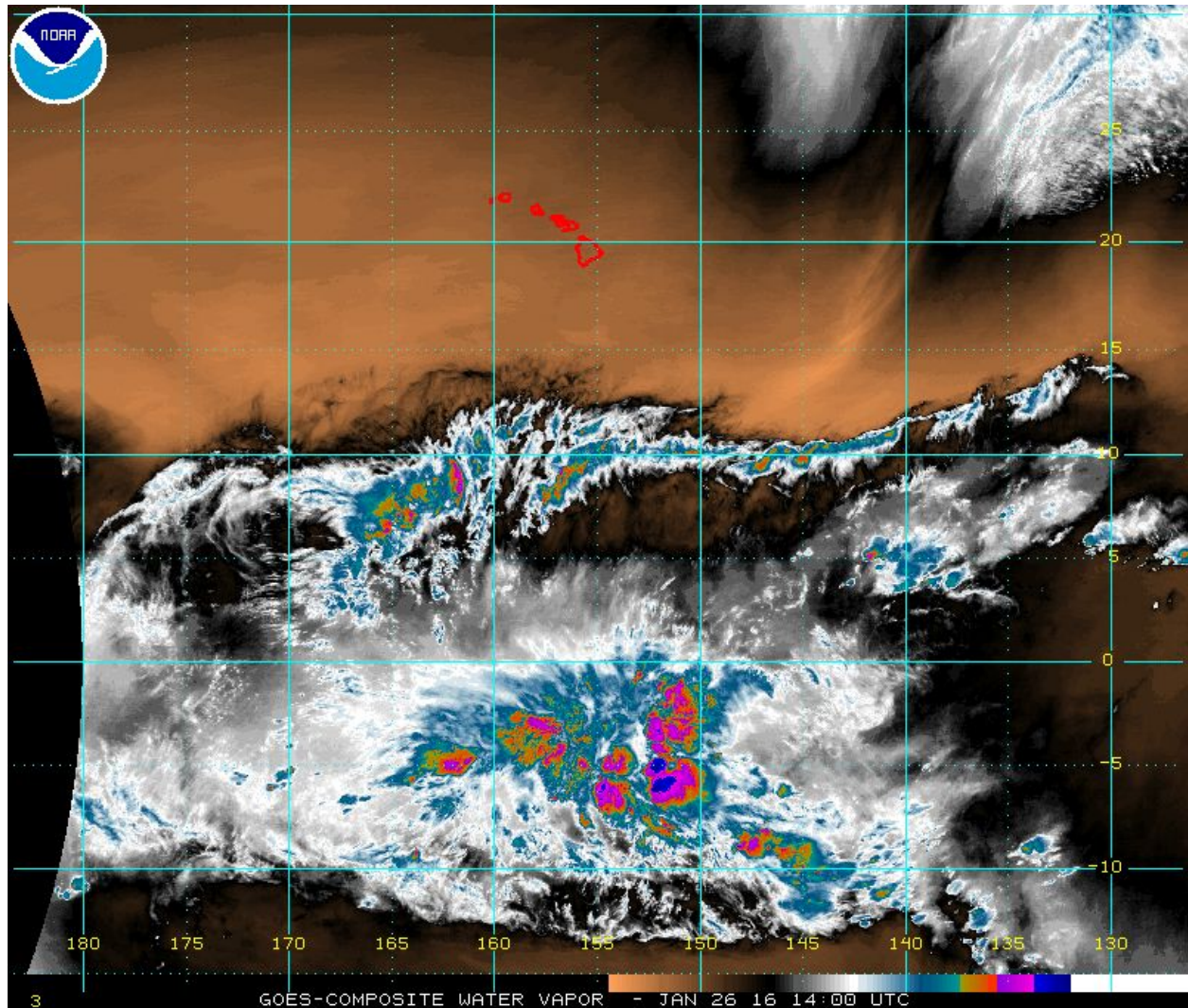
Tuesday 14Z January 26 Enhanced IR Image



Monday 15Z January 25 Water Vapor Image

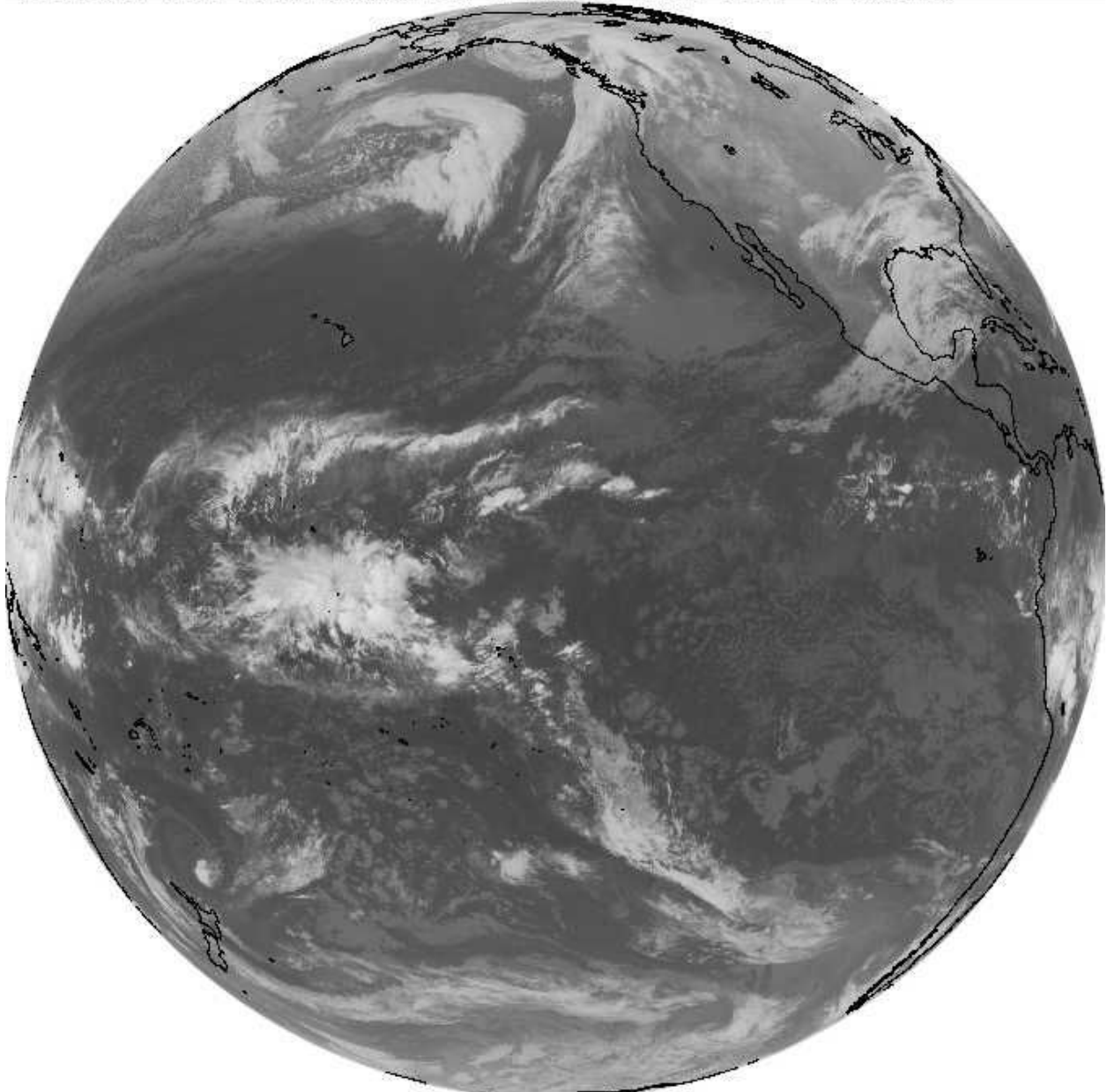


Tuesday 14Z January 26 Water Vapor Image



Tues 12Z January 26 GOES West IR Image

GOES WEST FULL DISK LONGWAVE IR 26 JAN 16 12:00 SSEC: UW-MADISON



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2016026 120000

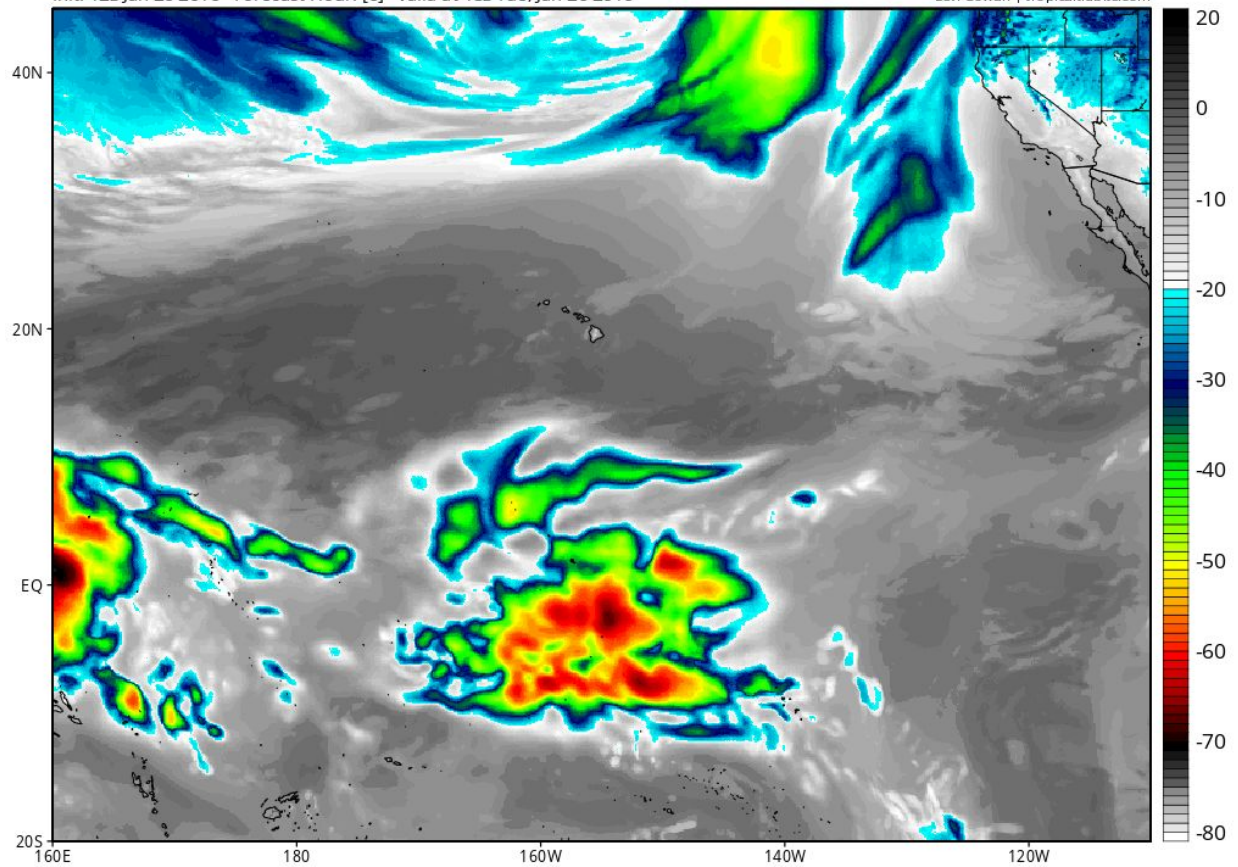
McIDAS

00-HR GFS 12Z Tues Jan 26 : IR Brightness Temp

GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 26 2016 Forecast Hour: [6] valid at 18z Tue, Jan 26 2016

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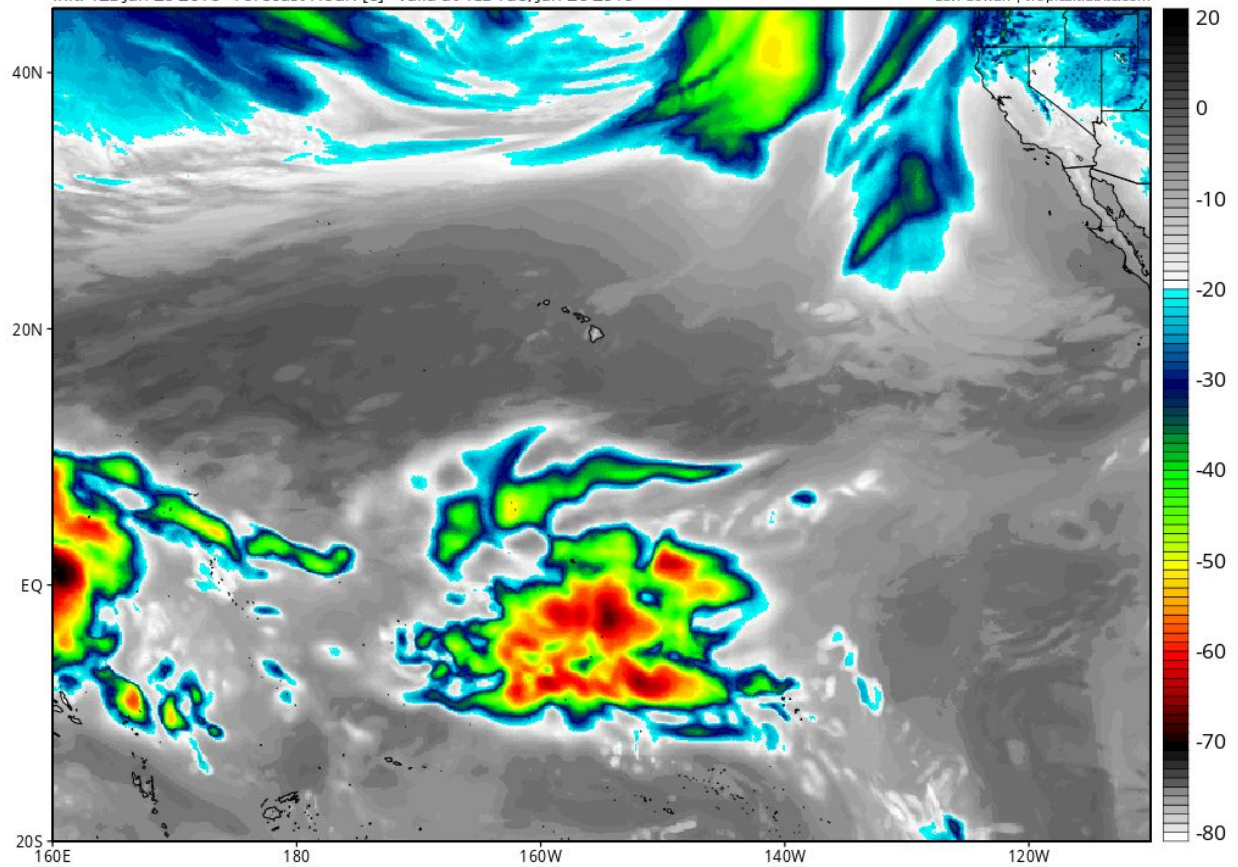


06-HR GFS 18Z Tues Jan 26 : IR Brightness Temp

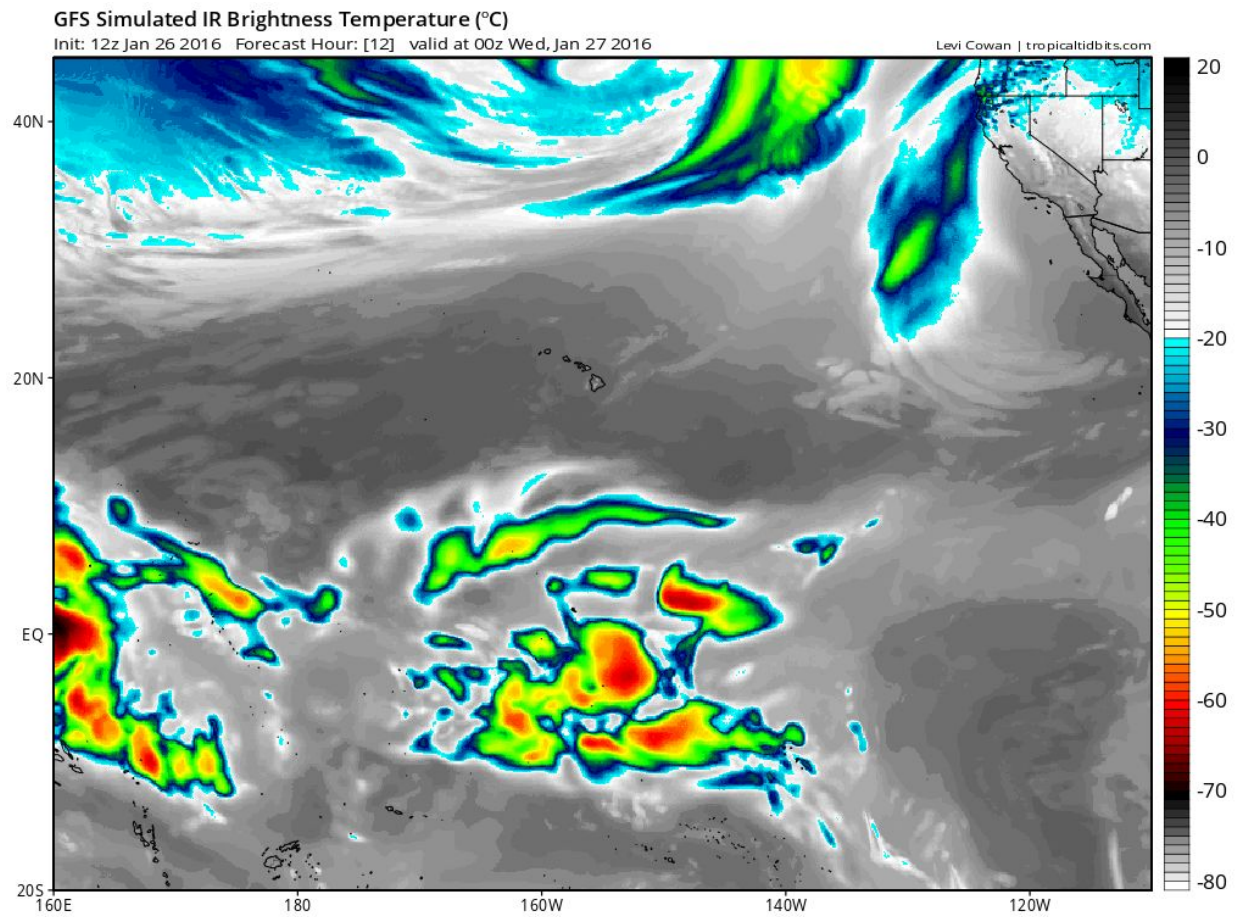
GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 26 2016 Forecast Hour: [6] valid at 18z Tue, Jan 26 2016

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12-HR GFS 00Z Wed Jan 26 : IR Brightness Temp

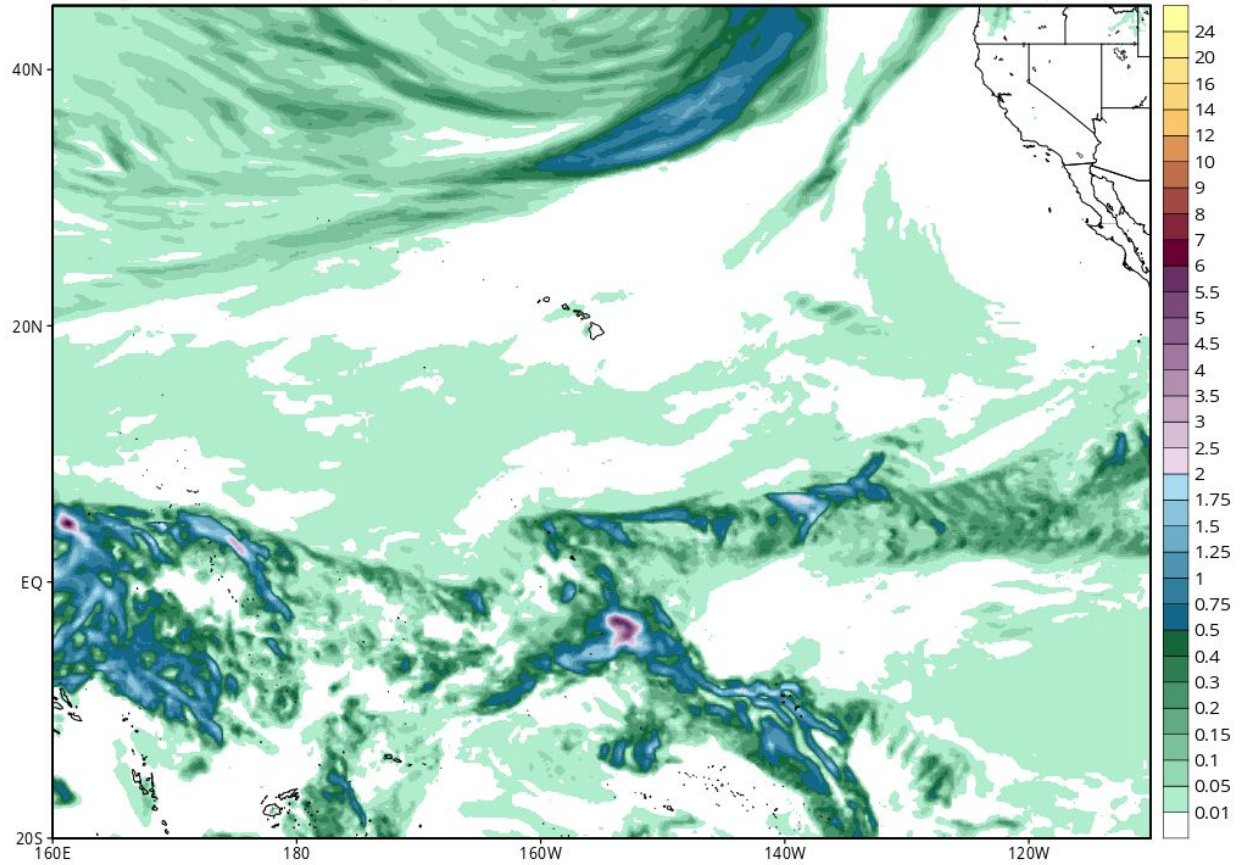


12-HR Accumulated Pcpn GFS : Ending 00Z Wed Jan 27

GFS Total Accumulated Precipitation (inches) from 12z26Jan2016 to 00z27Jan2016

Init: 12z Jan 26 2016 Forecast Hour: [12] valid at 00z Wed, Jan 27 2016

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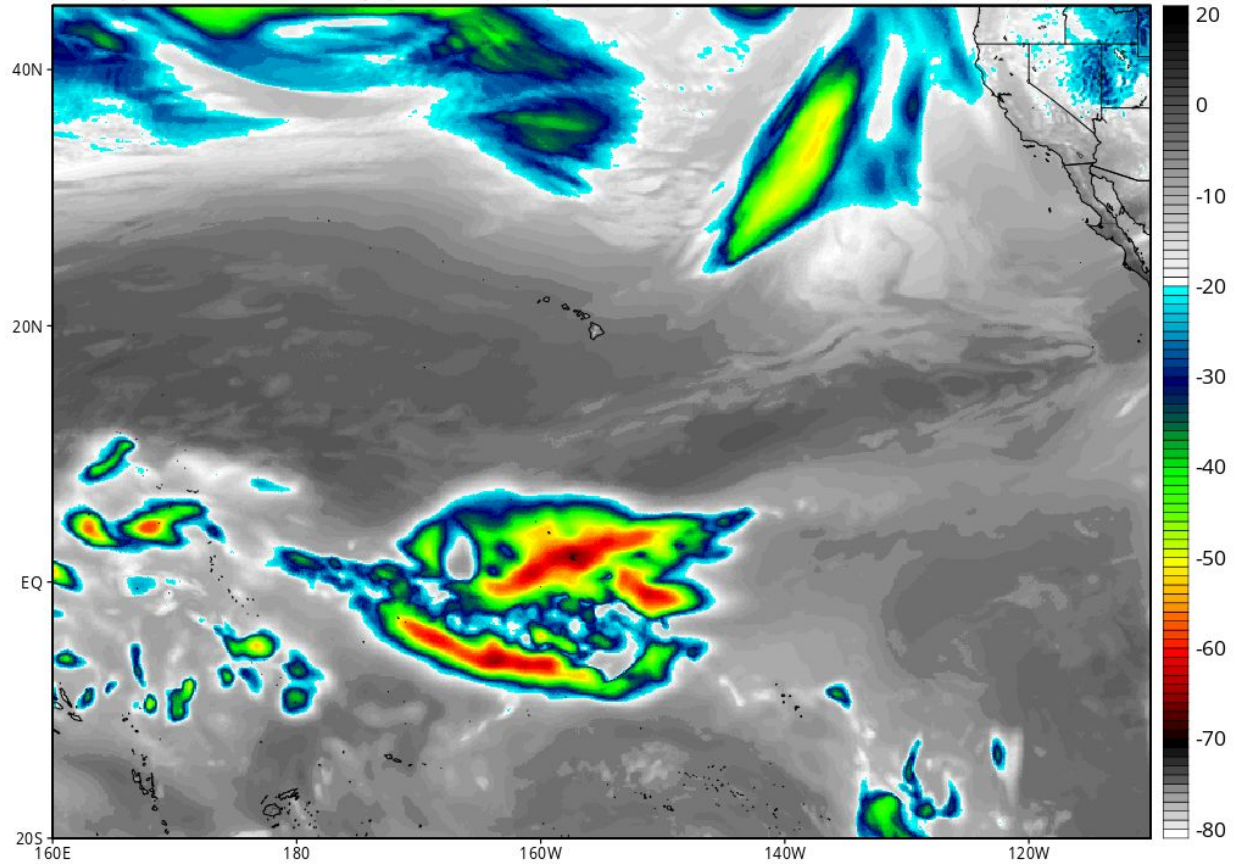
Retrospective Assessment : Guidance Valid Monday 2PM HNL

12-HR GFS 00Z Tues Jan 26 : IR Brightness Temp

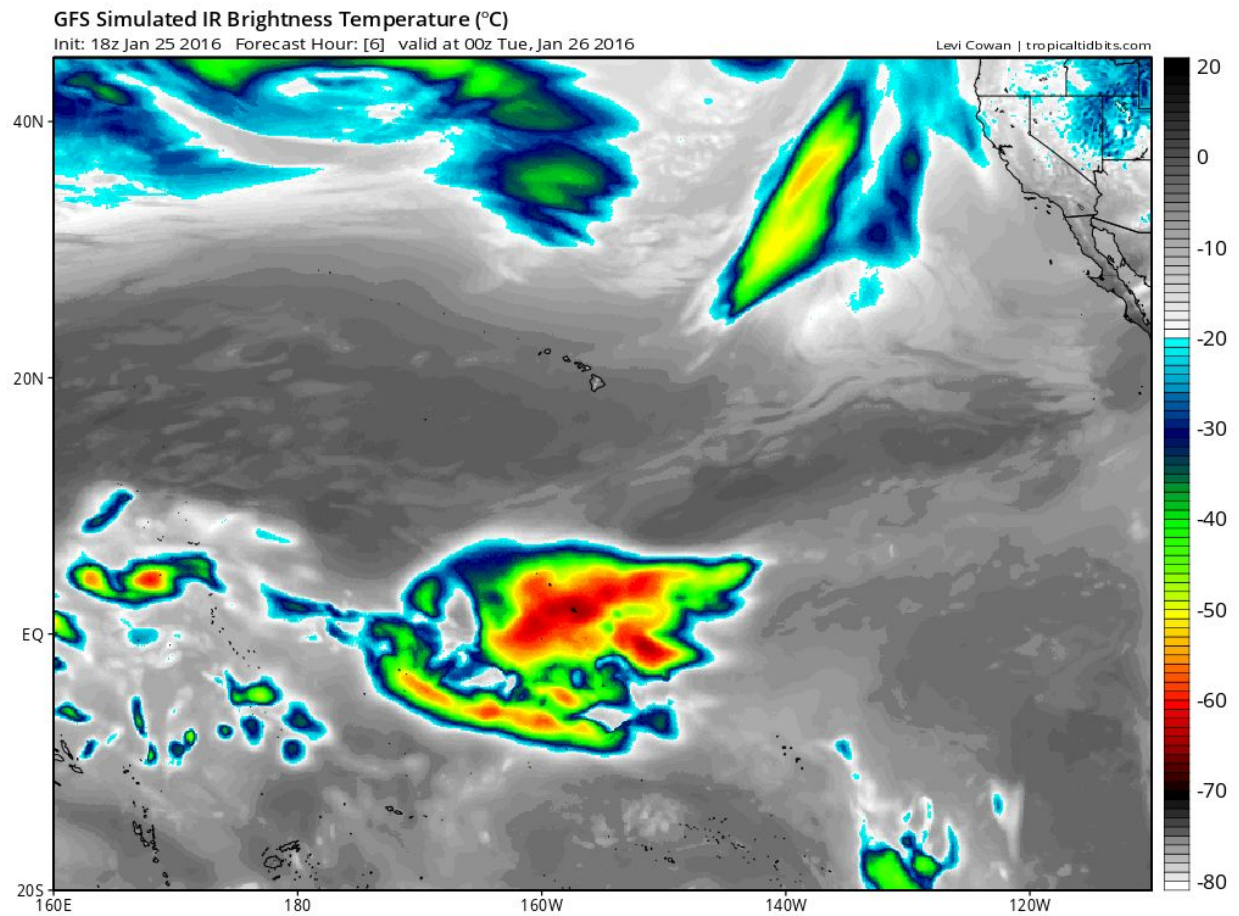
GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 25 2016 Forecast Hour: [12] valid at 00z Tue, Jan 26 2016

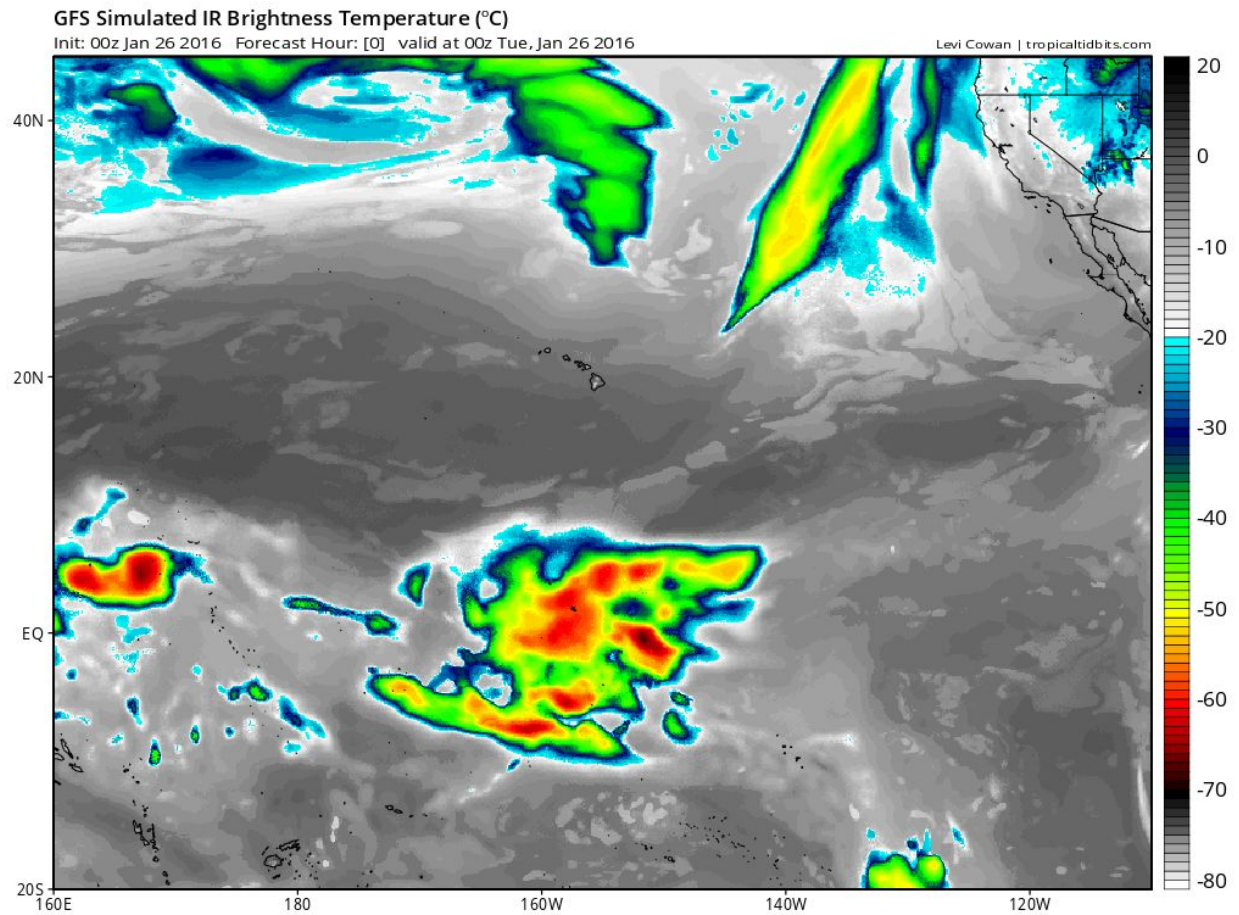
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6-HR GFS 00Z Tues Jan 26 : IR Brightness Temp



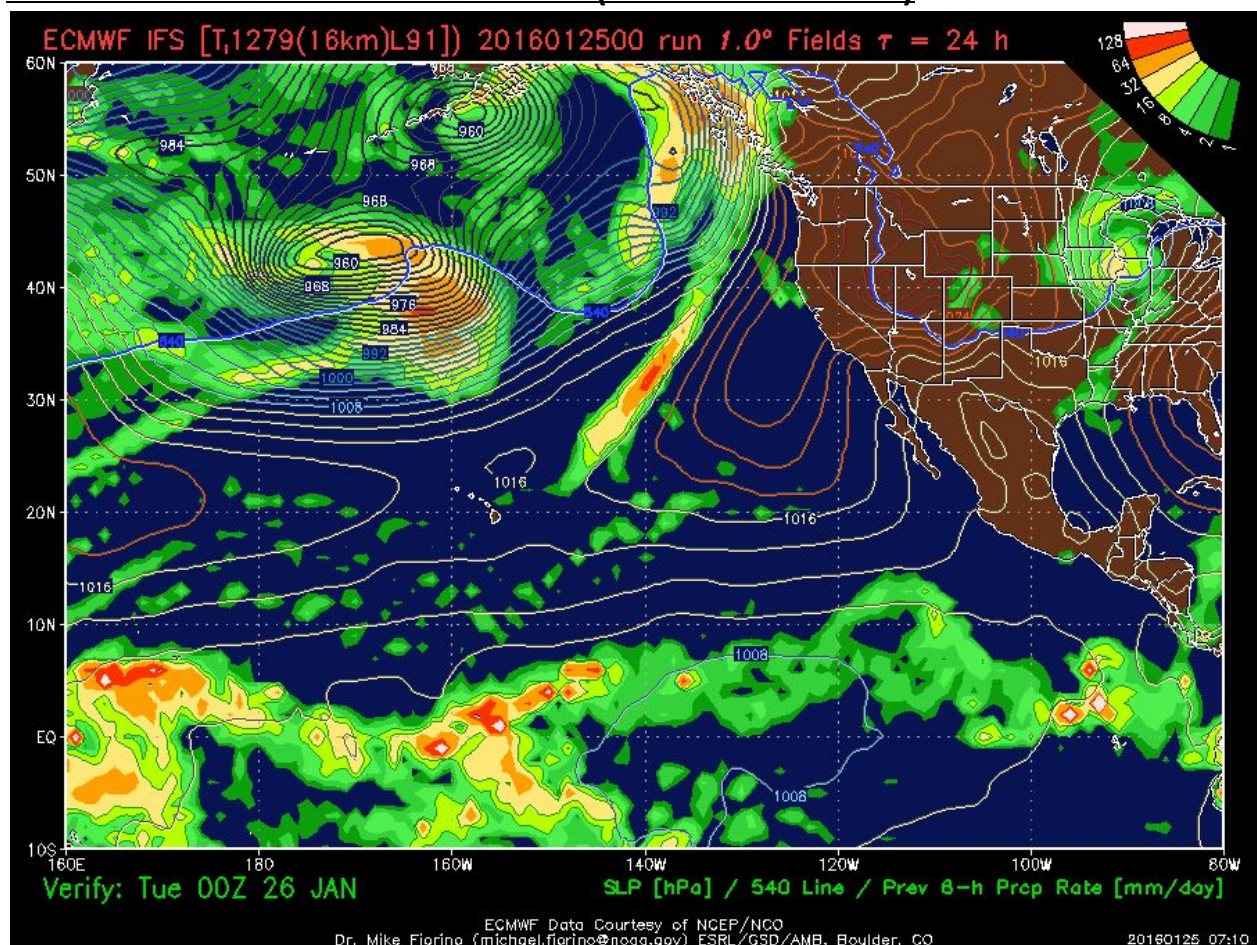
0-HR GFS 00Z Tues Jan 26 : IR Brightness Temp



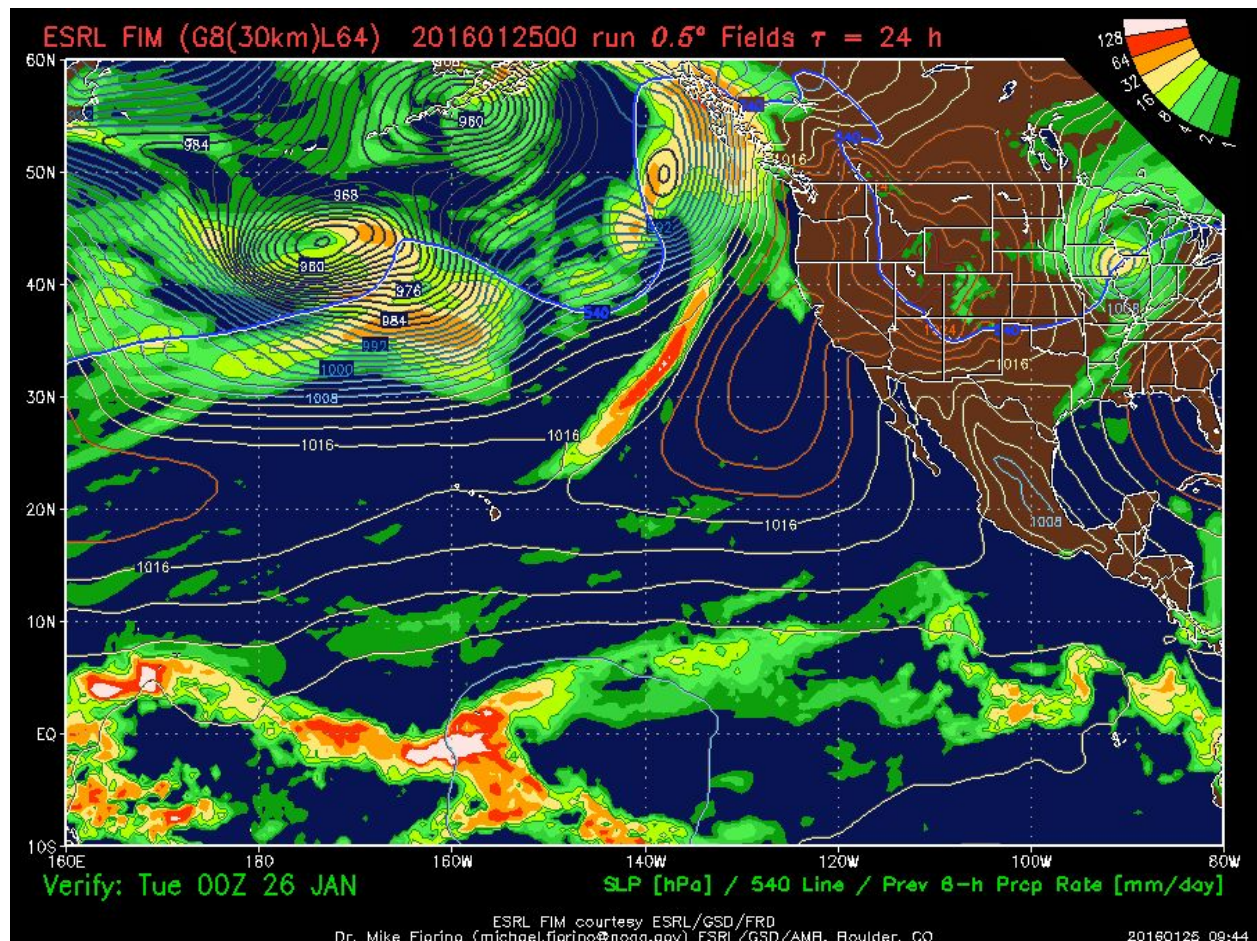
Retrospective

Short Term Fcsts Valid 00Z Tues Jan 26 (2PM Mon HNL Time)

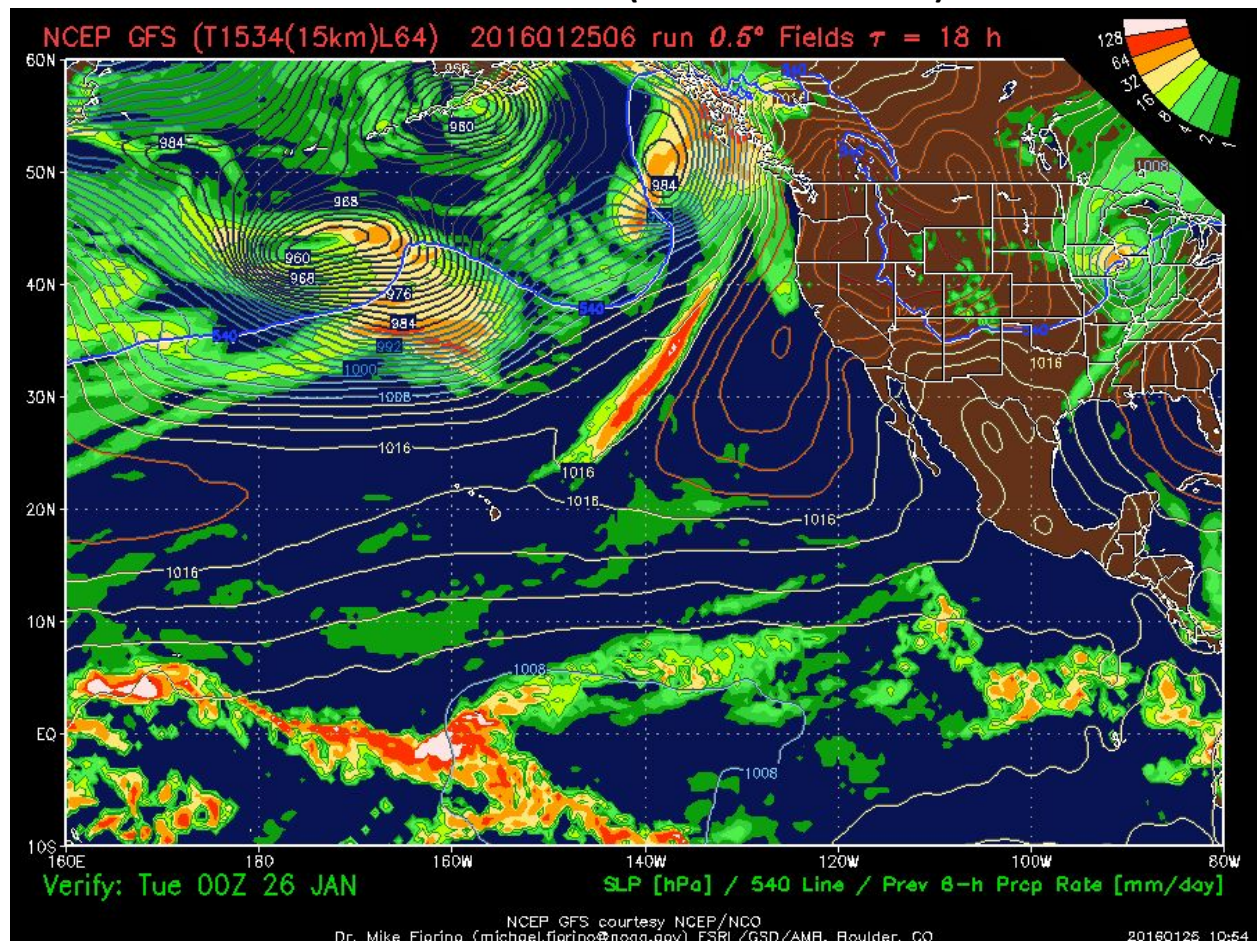
ECMWF 24HR Fcst for 00Z Tue 26 Jan (from 00Z Mon Run)



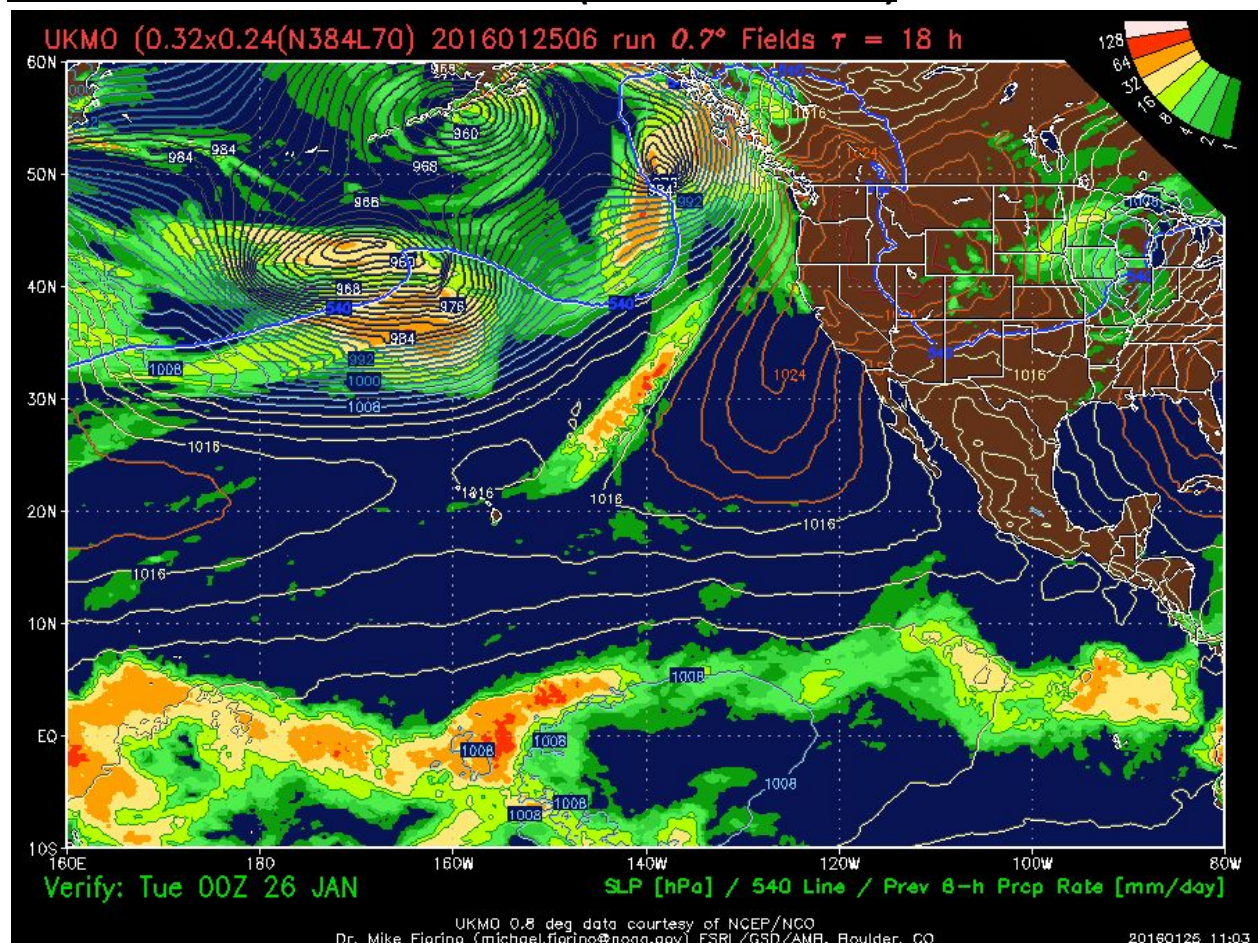
ESRL-FIM 24HR Fcst for 00Z Tue 26 Jan (from 00Z Mon Run)



NCEP-GFS 18HR Fcst for 00Z Tue 26 Jan (from 06Z Mon Run)



UKMO 18HR Fcst for 00Z Tue 26 Jan (from 06Z Mon Run)



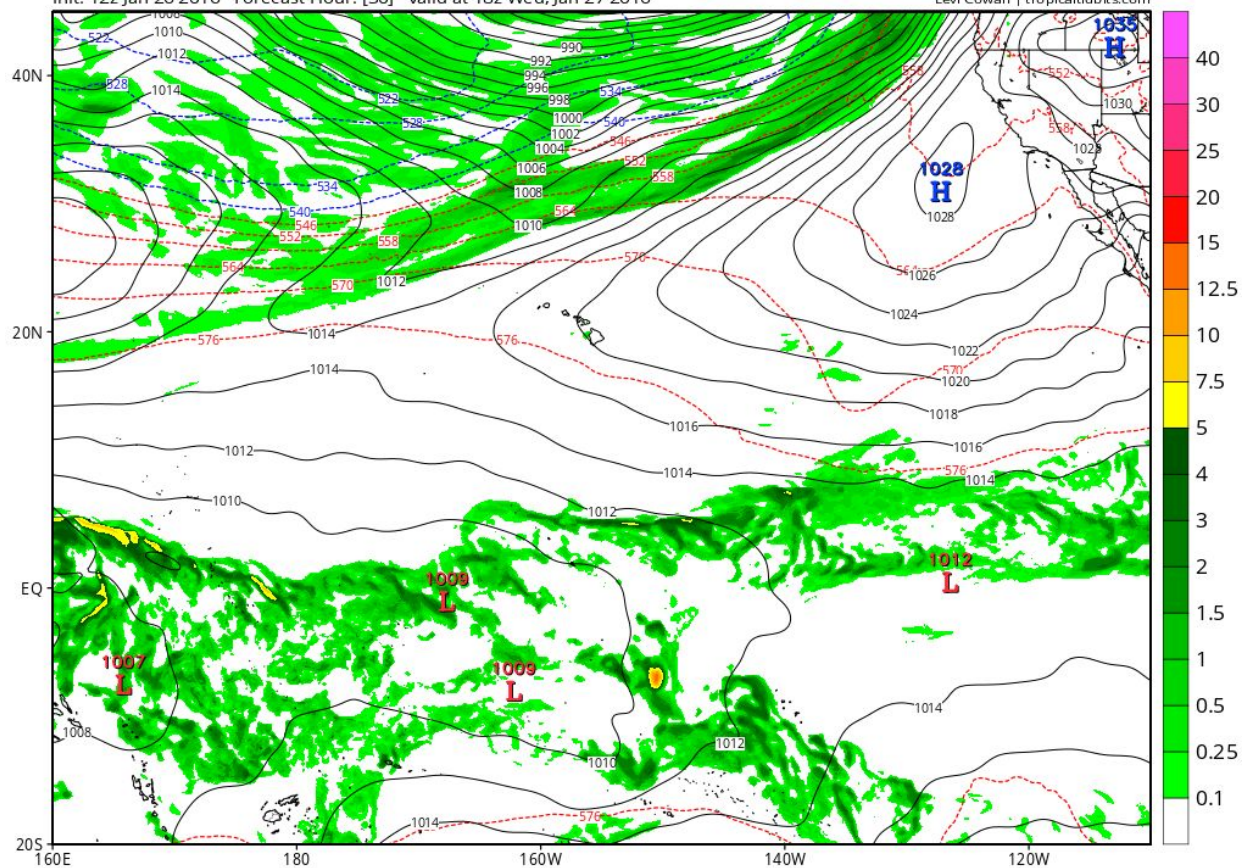
Short Term Fcsts

GFS Valid 18Z Wed Jan 27 (8AM Wed HNL Time)

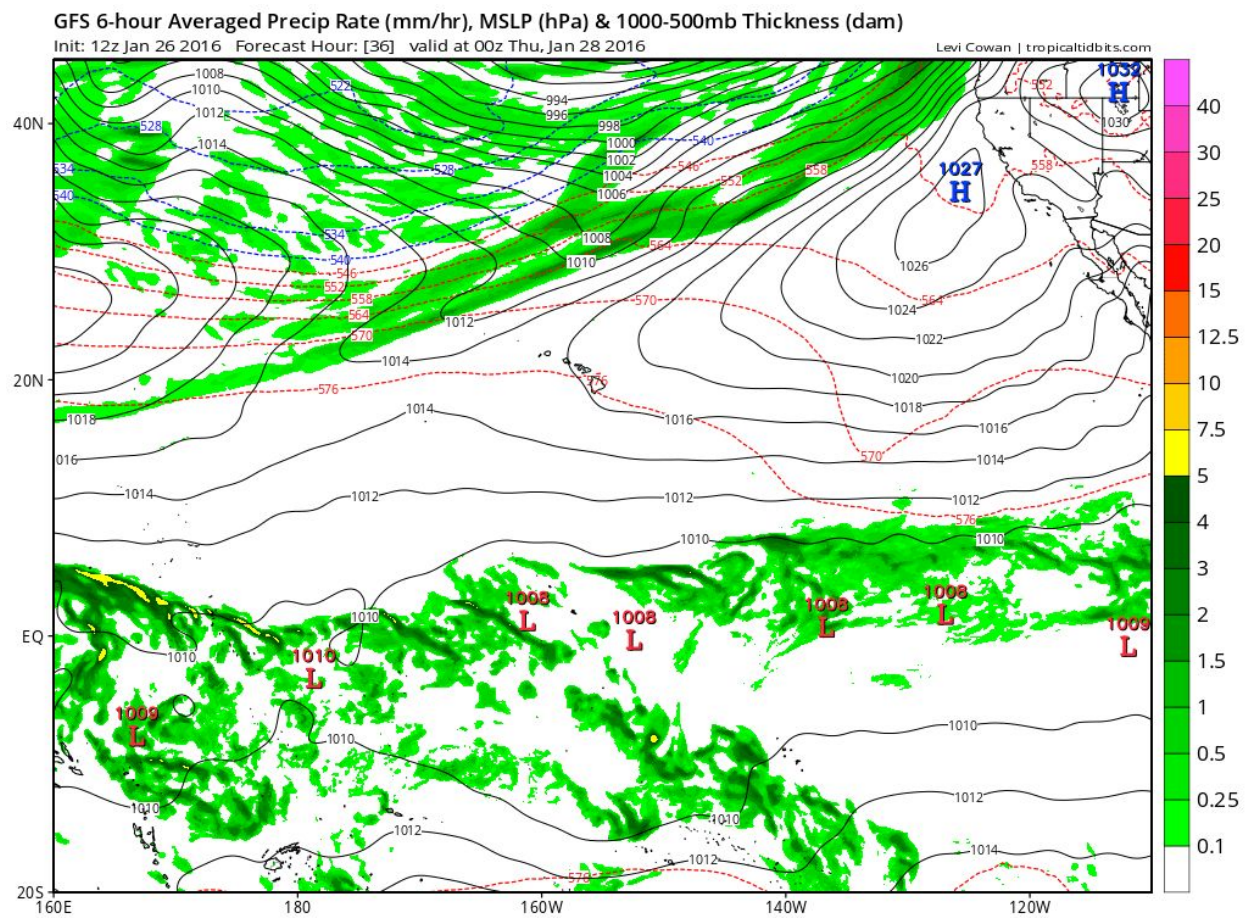
GFS 6-hour Averaged Precip Rate (mm/hr), MSLP (hPa) & 1000-500mb Thickness (dam)

Init: 12z Jan 26 2016 Forecast Hour: [30] valid at 18z Wed, Jan 27 2016

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GFS Valid 00Z THU Jan 28 (2PM Wed HNL Time)

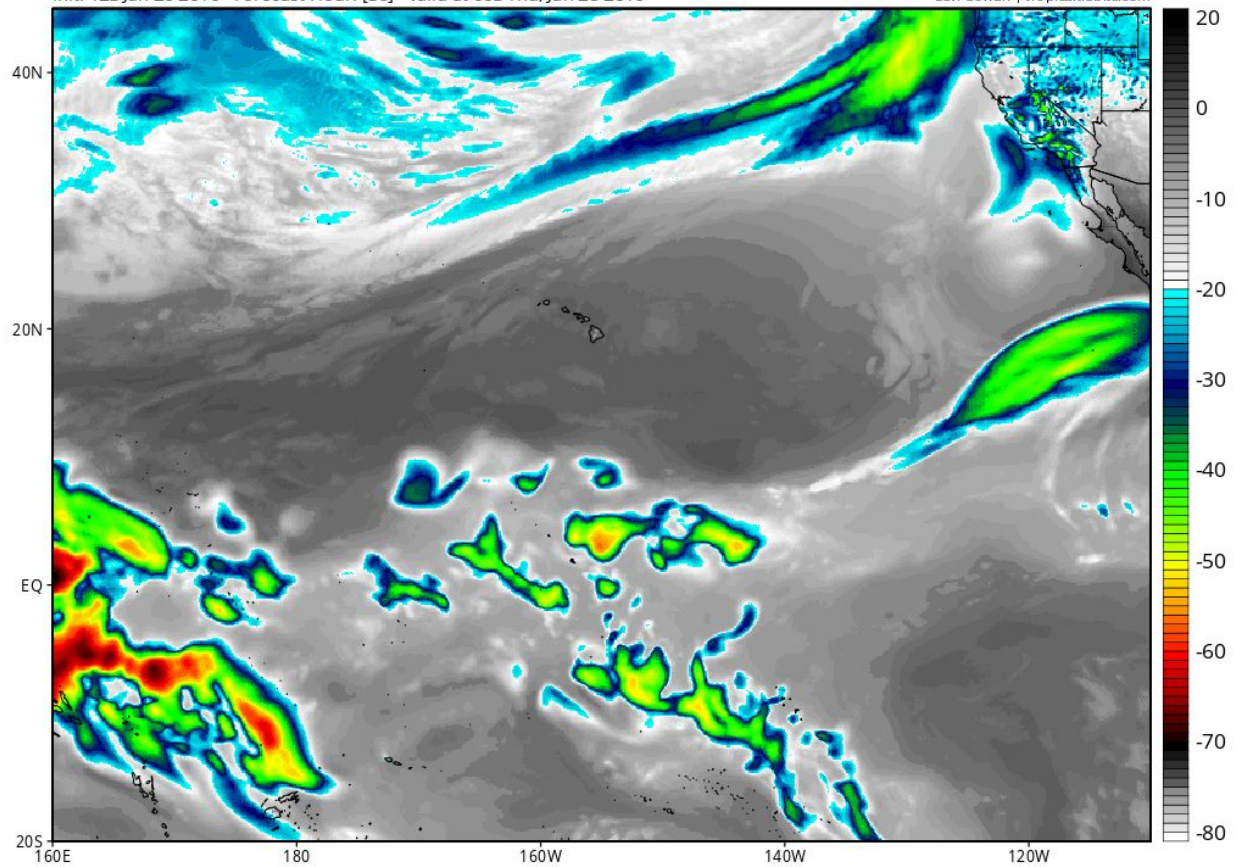


36 HR GFS --- Valid 00Z THU Jan 28 (2PM Wed HNL Time)

GFS Simulated IR Brightness Temperature (°C)

Init: 12z Jan 26 2016 Forecast Hour: [36] valid at 00z Thu, Jan 28 2016

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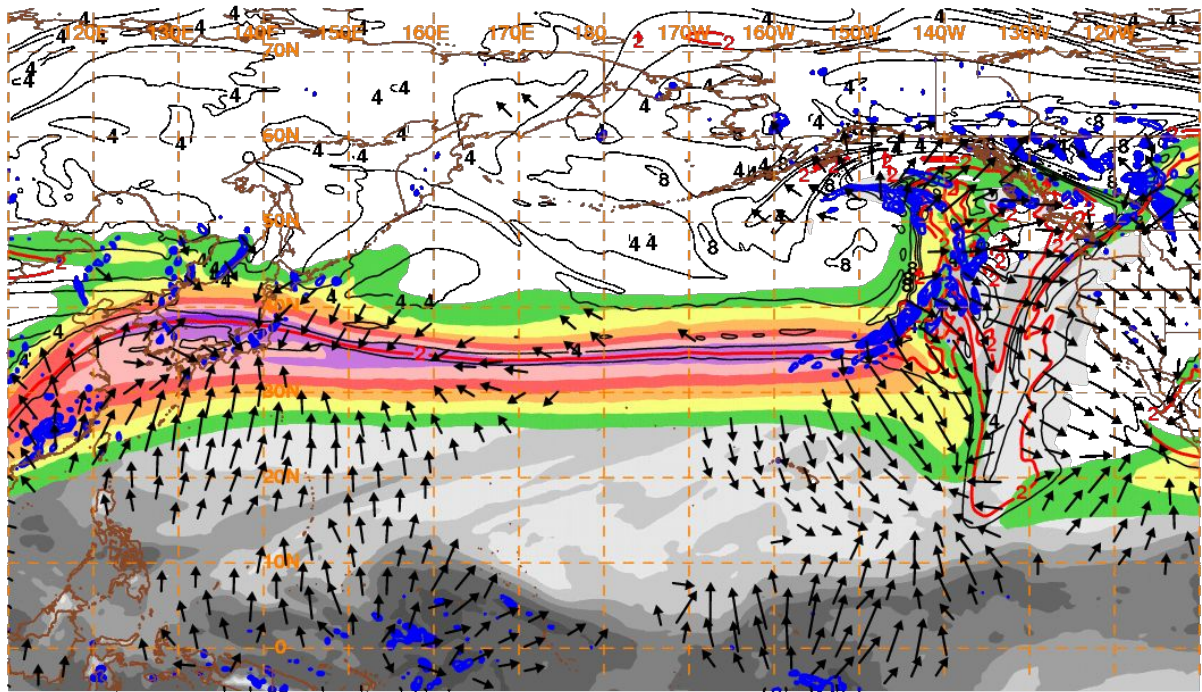
Short Term Fcsts Valid 00Z Wed Jan 27 (2PM Tues HNL Time)

UKMO 42 HR Fcst for 00Z Wed 27 Jan (from 06Z Mon Run)

From Latest Initialization of GFS (06Z TUE 26 Jan)

GFS 12-hr Fcst Valid 18Z 26 January Tue (8am local HT TUE)

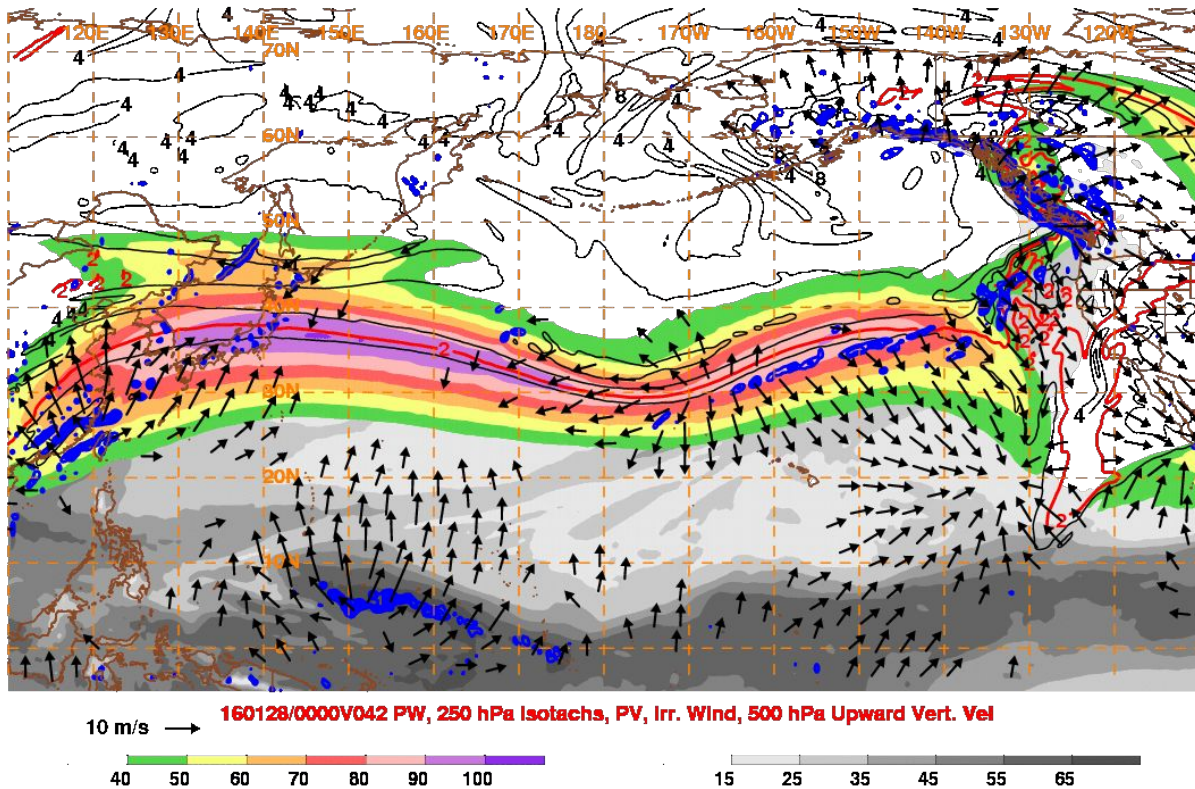
GFS 18-hr Fcst Valid 00Z 27 January WED (2PM local HNL TUES)



10 m/s → **160127/0000V018 PW, 250 hPa Isotachs, PV, Irr. Wind, 500 hPa Upward Vert. Vel**



GFS 42-hr Fcst Valid 00Z 28 January THU (2pm local HNLH WED)



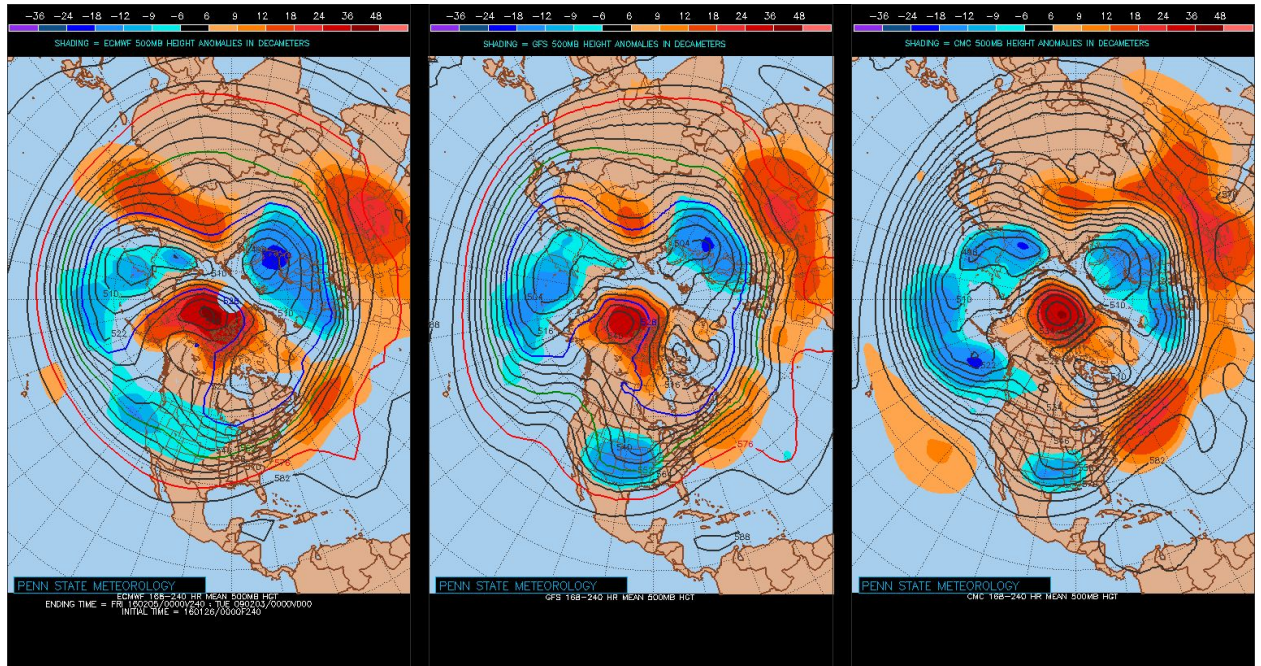
CNRFC Forecast 6 day Pcpn TUE 26 Jan thru MON 1 FEB

CNRFC Forecast 6 day Pcpn TUE 26 Jan thru MON 1 FEB

Medium - Long Range Forecast

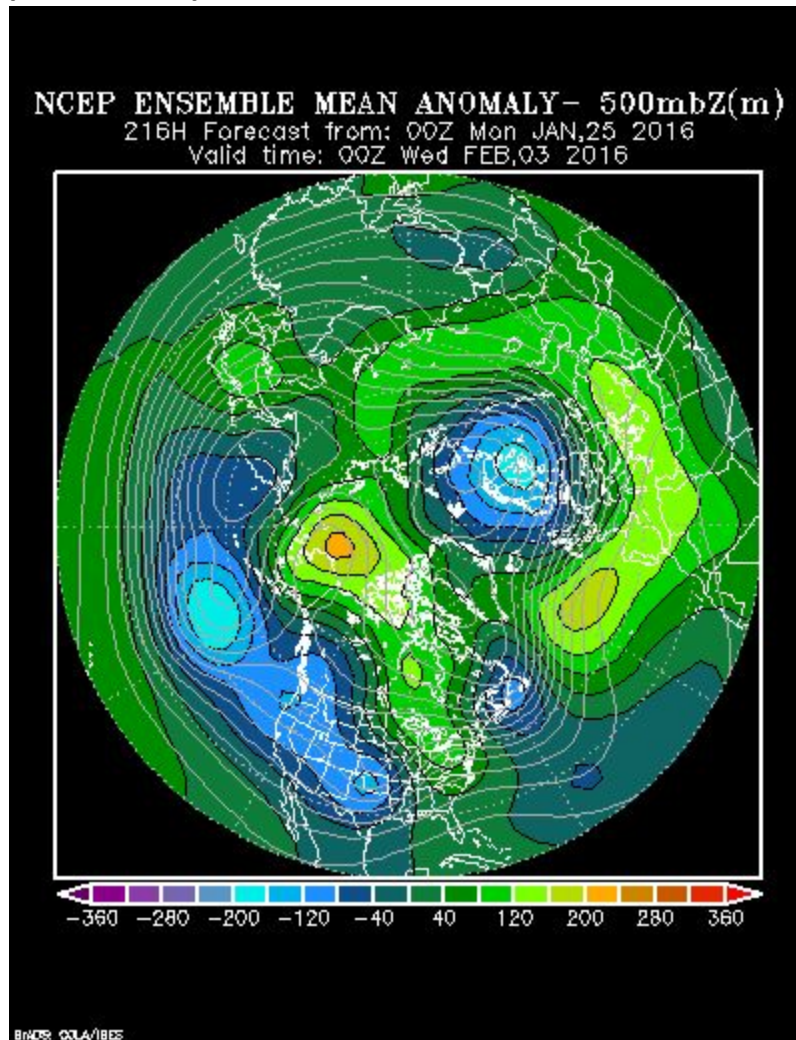
3 Model Intercomparison Deterministic Fcsts of 500Z/anomalies :

Day 7-10 Mean/anomalies (from 00Z TUE 25 Jan initializations)



Day 9 Ensemble Mean 500Z Forecast

**NCEP GEFS Ensemble 500 mb Height and Anomalies Valid OOB Feb 3
(216 Hr Fcst)**

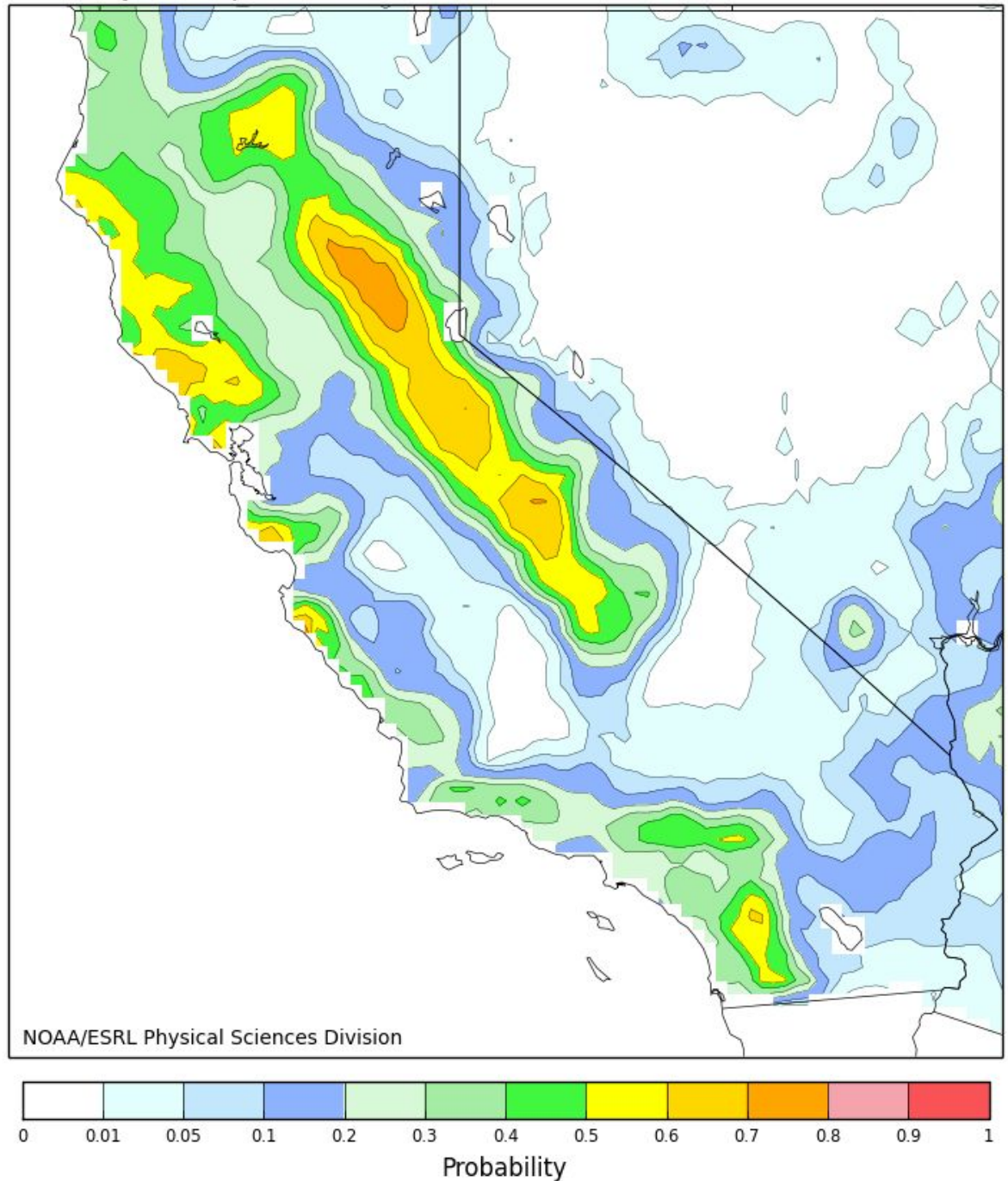


ESRL-Calibrated Reforecast Pcpn :

Day 6-10 Fcst for 00z 29 January -00z Wed February 3

(from the 00Z MON 24 JAN ensembles of the experimental reforecast system)

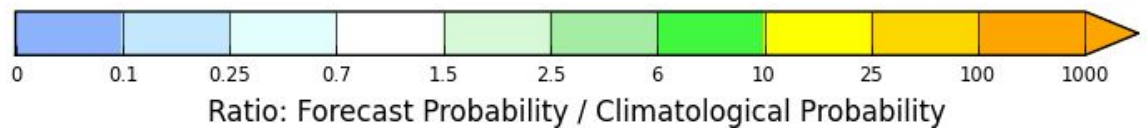
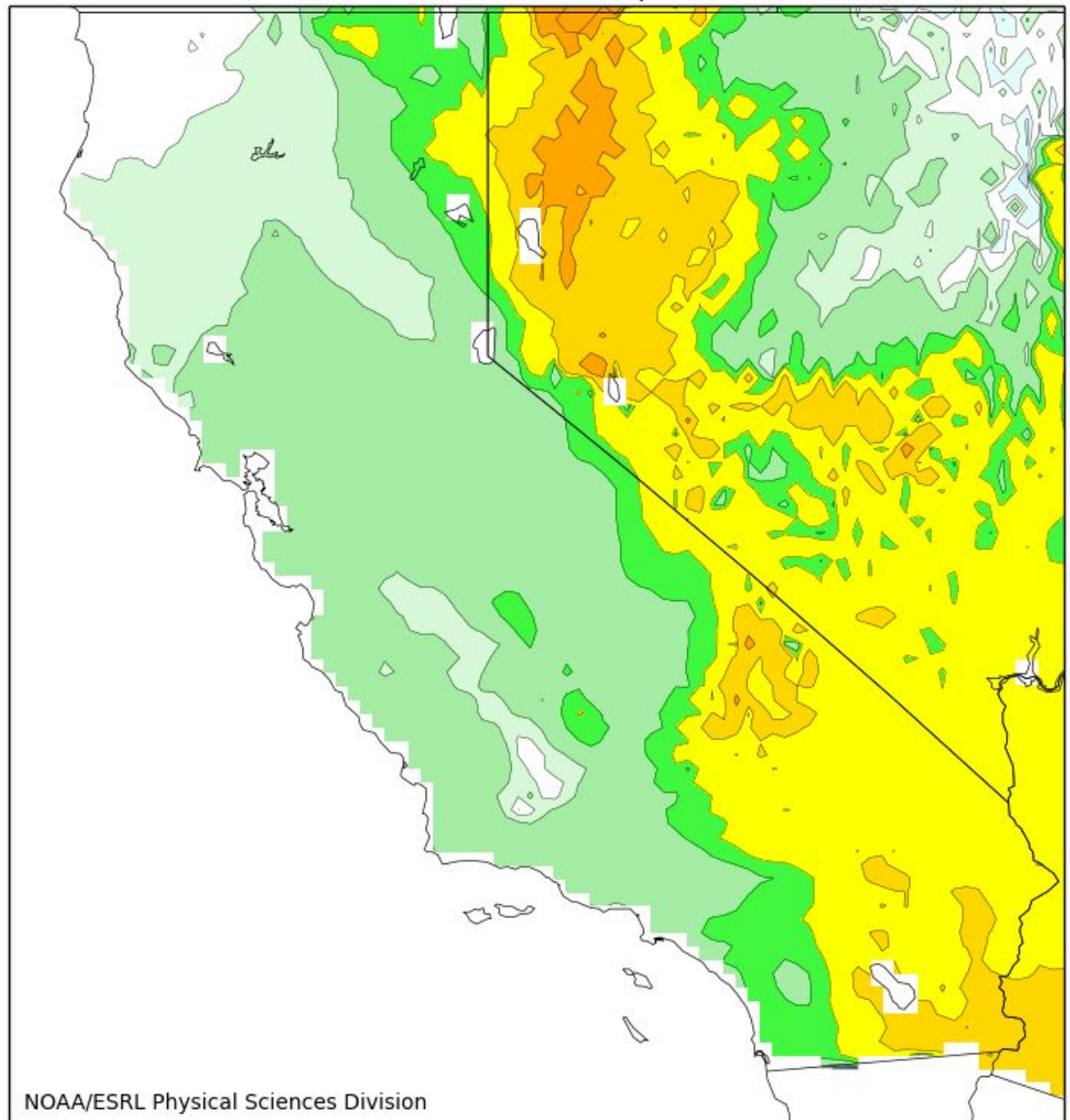
120-240hr fcst from 00Z Mon Jan 25. Valid 00Z Sat Jan 30 - 00Z Thu Feb 04
Probability of Precip > 50mm. CSGD. 2002-2013 CCPA and Reforecast2 Calibration.



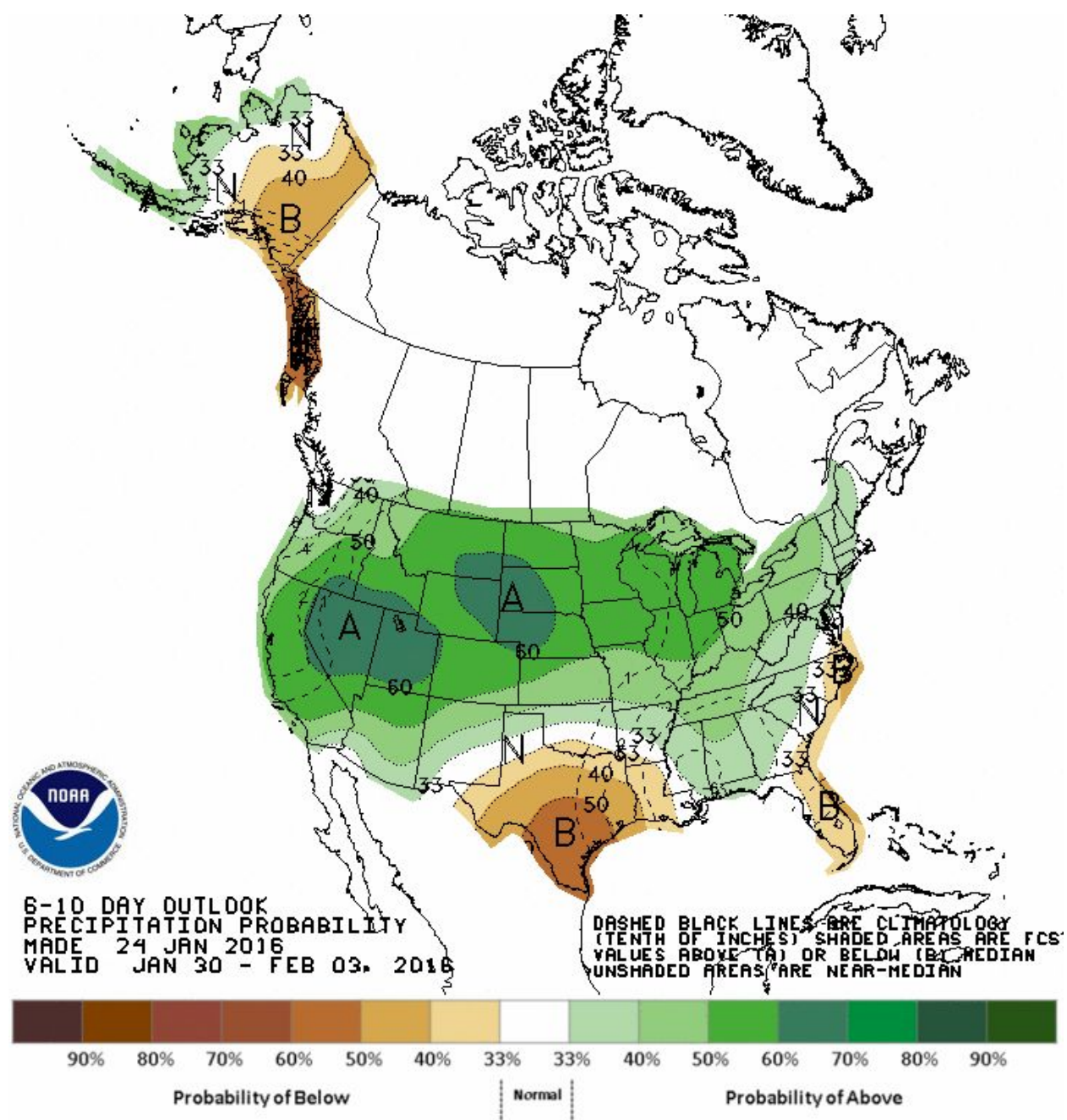
ESRL-Calibrated Reforecast Fractional Change in % Compared to Climo :
Day 6-10 Fcst for 00zFrid -00z Wed February 3

(from the 00Z MON ensembles of the experimental reforecast system)

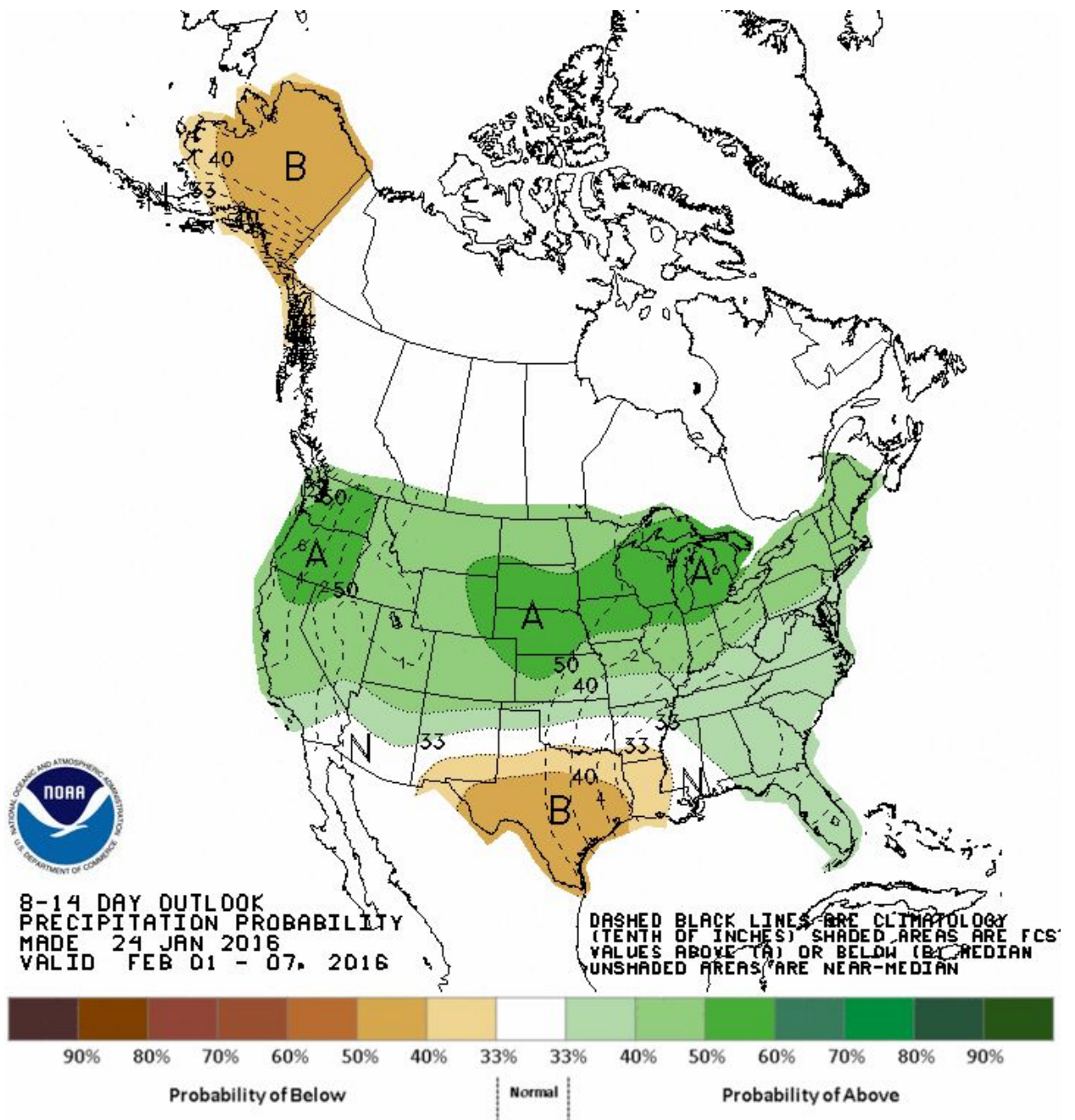
120-240hr fcst from 00Z Mon Jan 25. Valid 00Z Sat Jan 30 - 00Z Thu Feb 04
Ratio. Forecast/Climo Prob of Precip > 50mm. CSGD.



CPC 6-10 Day Pcpn Outlook Valid 30 Jan - 03 Feb 2016

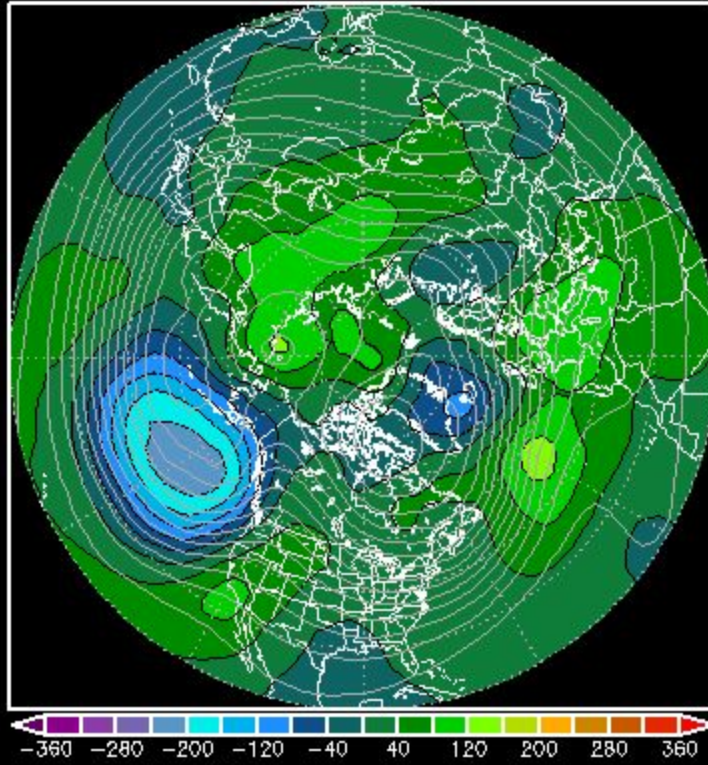


CPC 8-14 Day Pcpn Outlook Valid 30 Jan - 03 Feb 2016



360 Hr Fcst Ensemble Mean 500 Z Anom : Valid 8 Feb 2016

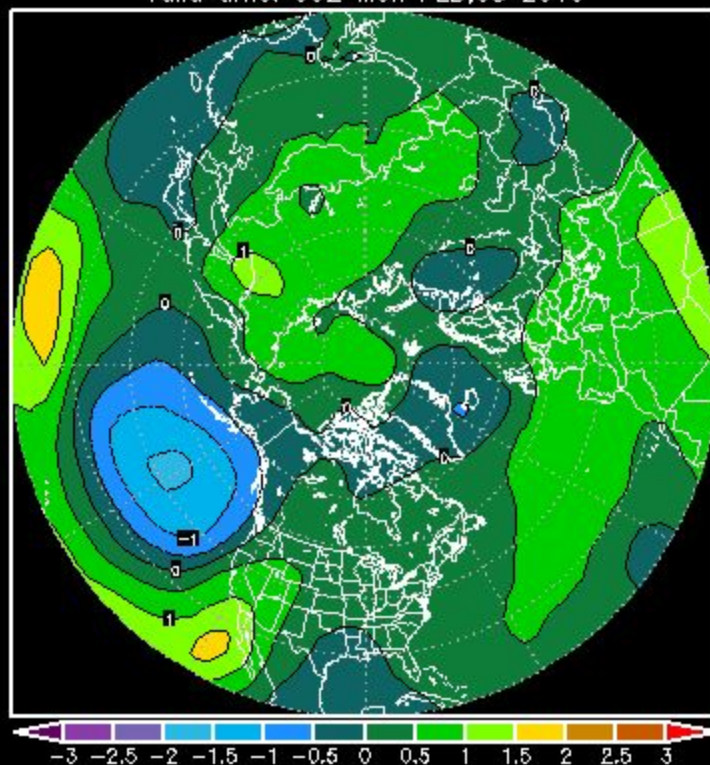
NCEP ENSEMBLE MEAN ANOMALY- 500mbZ(m)
360H Forecast from: 00Z Sun JAN,24 2016
Valid time: 00Z Mon FEB,08 2016



BR/OS COLA/IBES

360 Hr Fcst Standardized Ensemble Mean 500 Z Anom : Valid 8 Feb 2016

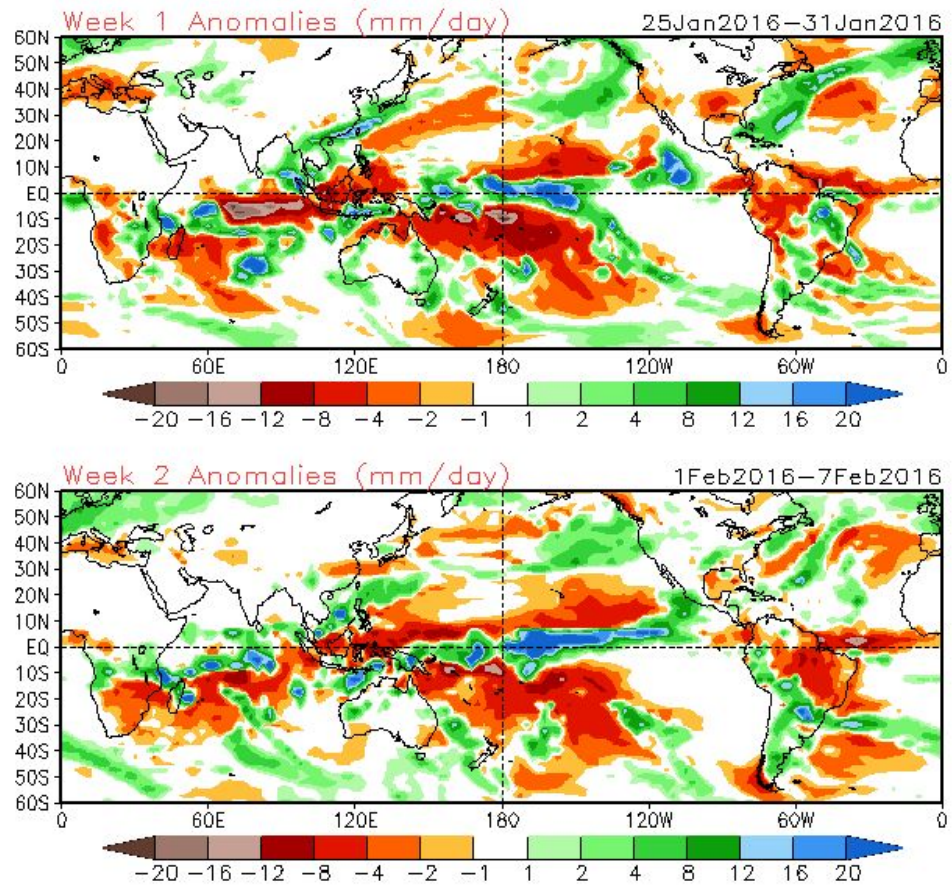
NCEP ENS. MEAN NORM. ANOM - 500mb Z(m)
360H Forecast from: 00Z Sun JAN,24 2016
Valid time: 00Z Mon FEB,08 2016



BR/OS COLA/IBES

CFS Week 1 and Week 2 PCPN Anomalies: Jan 24 initialized

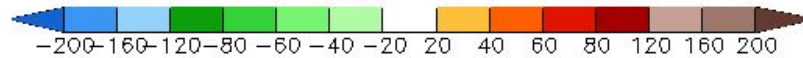
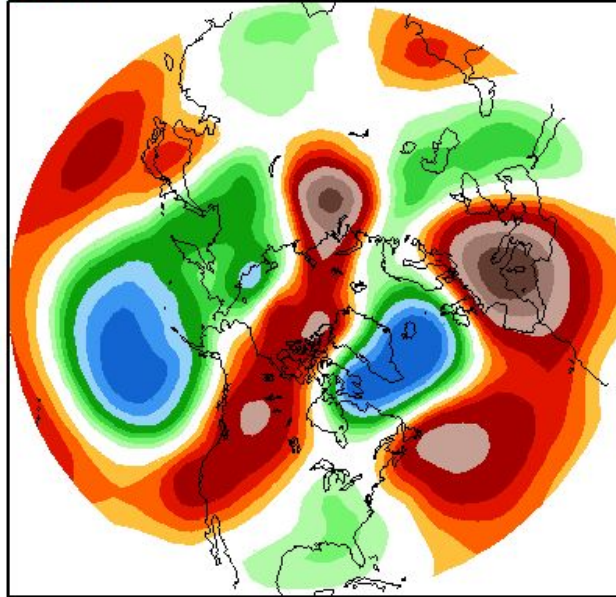
CFSv2 Weeks 1 & 2 Precipitation
16 Member Ensemble Mean Forecast from 24Jan2016



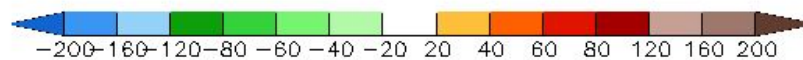
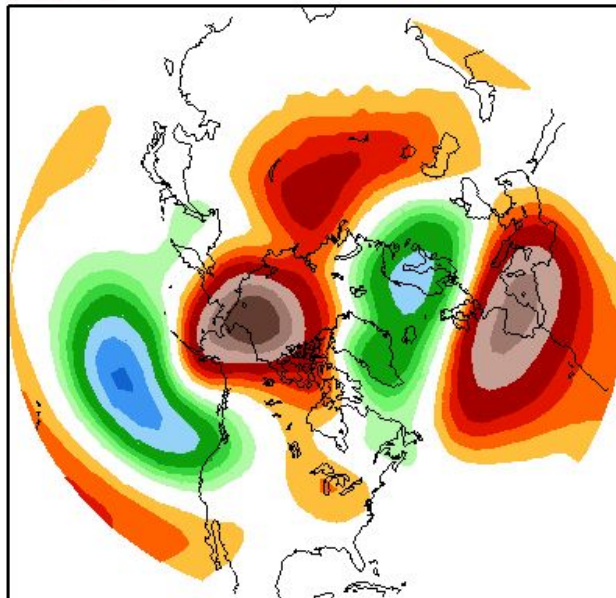
CFS Week 1 and Week 2 500 mb Height Anomalies: Jan 23 initialized

CFSv2 Weeks 1 & 2 500 hPa Z Anomalies (m)
16 Member Ensemble Mean Forecast from 24Jan2016

Week 1 25Jan2016–31Jan2016



Week 2 1Feb2016–7Feb2016



CFS Week 1 and Week 2 NA Pcpn Anomalies: Jan 23 initialized

CFSv2 Weeks 1 & 2 Precipitation
16 Member Ensemble Mean Forecast from 24Jan2016

